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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,299	12/29/1999	MARCEL F.C. SCHEMMANN	FSP0228	2088
7590		05/04/2007		
FSP LLC Attn: Charles A Mirho P. O. Box 890 Vancouver, WA 98666-0890			EXAMINER KIM, DAVID S	
			ART UNIT 2613	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/474,299

Applicant(s)

SCHEMMANN ET AL.

Examiner

David S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 58-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 58-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Applicant's response to the objections to the drawings in the previous Office Action (mailed on 22 November 2006) is noted and appreciated. Applicant responded by canceling claims 42-57 and by providing an explanation about Figs. 13-14. Applicant's response overcomes the previous objections, which are presently withdrawn.

Claim Rejections - 35 USC § 112

2. Applicant's response to the rejections of the claims under 35 USC 112 in the previous Office Action (mailed on 22 November 2006) is noted and appreciated. Applicant responded by canceling claims 42-57. Accordingly, the previous rejections are moot, and the previous rejections are presently withdrawn.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 58-63 and 66** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, notice the following limitation from independent claim 58 and dependent claim 66:

"the **forward signal converter** configured to **upconvert**" (emphasis Examiner's).

However, notice that there is no forward signal upconversion in the elected species of Fig. 11. The forward direction is to the left and there are no upconverters for signals propagating to the left. Rather, there are upconverters only for signals propagating in the return direction to the right (i.e., frequency converters FC 797, 798, 821). Accordingly, the cited limitation above constitutes new matter.

5. **Claims 64-66** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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In particular, notice the following limitation from independent claim 64:

“at least **one** up-converter configured to

upconvert some of the first optical signals to a **second** frequency band,

and to upconvert other of the first optical signals to a **third** frequency band” (emphasis Examiner’s).

This limitation appears to correspond to frequency converter FC 821. However, this **one** frequency converter only upconverts a set of signals to **one** frequency band (i.e., 400-600 MHz). It does not upconvert another set of signals to **another** frequency band (e.g., 600-900 MHz). Rather, it appears the specification teaches that each frequency converter of each HCM 815 and 816 upconverts a respective set of received signals into **one** respective frequency band (Applicant’s specification, p. 40, l. 12-14). Accordingly, the cited limitation above constitutes new matter.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Wright

7. **Claims 64-65** are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Wright (U.S. Patent No. 5,841,468).

Regarding claim 64, Wright discloses:

An optical apparatus comprising:

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a plurality of receivers to receive a plurality of first optical signals from different optical fibers (receivers in a service site SS 16 in Fig. 1 for fiber-optic cables 18, col. 5, l. 52-53), each of the first optical signals having a first frequency band (e.g., 5-42 MHz in col. 8, l. 44-48);

at least one up-converter (e.g., 48 in Fig. 2A or 3) configured to

upconvert some of the first optical signals to a second frequency band (e.g., 77-112 MHz in Fig. 2A or 3),

and to upconvert other of the first optical signals to a third frequency band (e.g., 113-148 MHz in Fig. 2A or 3),

wherein the second and third frequency bands are each less than or equal to approximately an octave wide (a 35 MHz range for each frequency band is less than an octave for each band).

Regarding claim 65, Wright discloses:

The optical apparatus of claim 64, further comprising:

the second and third frequency bands are each less than or equal to approximately half an octave wide (a 35 MHz range for each frequency band is less than half an octave for each band).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK



KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER